Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

In the *Proceedings of the Academy of Natural Sciences of Philadelphia* for 1899 (p. 179) Mr. Henry A. Fowler describes a small collection of fishes sent to the academy from Tan-lan-ho River in China. The new species are: *Leuciscus farnumi*, *Leuciscus costatus*, *Nemachilus dixoni*, and *Nemachilus pechiliensis*. Mr. Fowler also (p. 118) publishes a short list of fishes of Jamaica in collections in Philadelphia. Of the twenty-five species none are new, although two or three are not common in collections.

The belated concluding number of Vol. XIV of the *Journal of Morphology*, dated September, 1898, has just appeared and contains the following articles: Budding in Perophora, by G. Lefevre; On the Morphology of Certain of the Bones of the Cheek and Snout of Amia Calva, by E. P. Allis, Jr.; The Location of the Basis of the Amphibian Embryo, by A. C. Eycleshymer; and The Cocoons and Eggs of Allolobophora Fœtida, by Katharine Foot.

The last number of the *Journal of Comparative Neurology*, Vol. IX, No. 2, contains, besides the usual editorial and literary notices, Nerve Termini in the Skin of the Common Frog, Part I, by G. E. Coghill; The Number and Arrangement of the Fibres forming the Spinal Nerves of the Frog, by Irving Hardesly; The Total Number of Functional Nerve Cells in the Cerebral Cortex of Man, and the Percentage of the Total Volume of the Cortex composed of Nerve Cell Bodies, calculated from Karl Hammarberg's Data, together with a Comparison of the Number of Giant Cells with the Number of Pyramidal Fibres, by H. B. Thompson; A Note on the Significance of the Small Volume of the Nerve Cell Bodies in the Cerebral Cortex of Man, by H. H. Donaldson.

BOTANY.

Weber's Cacti in Bois's Dictionnaire d'Horticulture.[1]—The compiler of this dictionary was fortunate in securing, as one of the many associate editors, Dr. Albert Weber as the authority for the order Cactaceæ. This was a wise selection in view of the fact that in all probability no other man to-day has such rich opportunities for studying the order, or has given so much careful consideration to it as Dr. Weber.

---

[1] Bois, D. *Dictionnaire d'Horticulture.* Paris, 1893. 4to.

As a surgeon in the French army during its occupation of Mexico he traveled in nearly every part of that country, and was always busy making observations and notes on the cacti. On his subsequent return to France he gathered together, in the gardens of Mr. Robert Roland Gosselin, a large collection of these plants, not only from Mexico, but from other countries as well; and with these he continued his study of the order, until now he is justly considered one of the best, if not the first authority on this family of plants. He was a constant correspondent of the late Dr. George Engelmann, the acknowledged American authority on the order, and their free exchange of opinions and of specimens was of invaluable aid to each.

Since a botanist would hardly expect to find original descriptions in a horticultural dictionary, it seems wise that these published by Dr. Weber be brought more conspicuously before the botanical public, and to that end they are here appended. The dictionary, not as yet completed, has thus far been issued in *livraisons* of thirty-two pages each. The date of issue of each *livraison*, as far as published, has been kindly furnished in a letter from the author, and the date given in the citation of the species is made to correspond.

Anhalonium trigonum Weber in Bois's *Dictionnaire d'Horticulture*, 90, June, 1893. This, in compliance with the rules of nomenclature, becomes *Ariocarpus trigonus* K. Sch. *Cereus Pasacana* Web. l.c. 281, published some time between Feb. 1894 and Feb. 1895; the exact date is not known. This enormous Cereus is the giant of the Argentine Cordilleras, as *Cer. giganteus* is that of the Mojave desert. *Echinocactus heterochromus* Web. l.c. 466, Sept. 1896. *Echino. Peninsulæ* Web. l.c. 467, Sept. 1896. *Echino. Saussieri* Web. l.c. 468, Sept. 1896. *Echino. microspermus* Web. l.c. 469, Sept. 1896. *Echino. Schickendantzii* Web. l.c. 470, Sept. 1896. *Mamillaria plumosa* Web. l.c. 804, Jan. 1898. *Mam. valida* Web. l.c. 806, Jan. 1898. *Opuntia hyptiacantha* Web. l.c. 894, April, 1898. *Op. myriacantha* Web. l.c. 894, April, 1898. *Op. pilifera* Web. l.c. 894, April, 1898. *Op. Quipa* Web. l.c. 894, April, 1898. *Op. quitensis* Web. l.c. 894, April, 1898. *Op. ursina* Web. l.c. 896, April, 1898. In this the specific name is suggested by the dense covering of long, coarse hair-like spines, which also give it the universally accepted common name of "Grizzly Bear Cactus." *Op. australis* Web. l.c. 896, April, 1898. *Op. Schickendantzii* Web. l.c. 898, May, 1898. *Op. Spegazzinii* Web. l.c. 898, May, 1898. *Pereskia Argentina* Web. l.c. 938, July, 1898. *Per. Guamacho* Web. l.c. 938, July, 1898. *Per. panamensis* Web. l.c. 939, July, 1898. *Per.*

tampicana Web. l.c. 939, July, 1898. *Per. Philippii* Web. l.c. 939, July, 1898. *Phyllocactus phyllanthus* Link. vars. *boliviensis* Web., *paraguayensis* Web., and *columbiensis* Web. l.c. 957, July, 1898.

Besides these descriptions of new species, Dr. Weber makes a number of new combinations in nomenclature which are here given, with sufficient synonymy only for identification. *Anhalonium turbiniforme* Web. (*Echino. turbiniformis* Pfeif.) in Bois's *Dict. d'Hort.*, 90, June, 1893. *Echinocactus latispinus* Web. (*Echino. cornigerus* DC.; *Cactus latispinus* Haw.) l.c. 467, Sept. 1896. *Echinopsis catamarcensis* Web. (*Cer. catamarcensis* Web.) l.c. 471, Sept. 1896. *Echinopsis minuscula* Web. (*Echino. minusculus* Web.) l.c. 471, Sept. 1896. *Echinopsis obrepanda* Web. (*Echino. obrepandus* Web.) l.c. 472, Sept. 1896. *Echinopsis Schickendantzii* Web. (*Cer. Schickendantzii* Web.) l.c. 473, Sept. 1896. *Mamillaria pectinifera* Web. (*Pelecyphora acelliformis* Ehrenb. var. *pectinata* Hort.) l.c. 804, Jan. 1898. *Opuntia cereiformis* Web. (*Grusonia cereiformis* Hort., *Cer. Bradtianus* Coult.) l.c. 897, May, 1898. *Op. spathulata* Web. (*Pereskia spathulata* Otto) l.c. 899, May, 1898. *Pereskia Amapola* Web. (*Per. horrida* Parodi., *Per. Bleo* Morong) l.c. 938, July, 1898. *Pfeiffera ianthothele* Web. (*Pf. cereiformis* Salm., *Cer. ianthothele* Monv.) l.c. 944, July, 1898.

C. H. T.

Fertilization of Cycas. — An important recent paper by Professor S. Ikeno,[1] of Tokyo, Japan, treats of the development of the sexual products and the process of fertilization in *Cycas revoluta*. Incidentally it throws light on the relationships of the Cycads, but its chief interest lies in its bearing on the general problems of cell structure and fertilization.

In the development of the archegonia within the endosperm, Ikeno distinguishes three periods corresponding with those which are recognized in the development of animal sexual products. These are:

1. A period of *division*, in which the archegonial cells are differentiated.

2. A period of *growth*, during which the central cell (egg-cell) of the archegonium attains a relatively enormous size, its nucleus alone being 75–120 mikra in diameter. The growth takes place at the expense of cells which surround the central cell, their nuclei being actively engaged in the formation of granular food substance which is passed on into the central cell through pores in the intervening cell walls.

---

[1] *Journal of the College of Science*, Imperial University, Tokyo, vol. xii, Pt. iii, pp. 151–214; Pls. X–XVII.